

position detecting means and bordering the blocks of a given size on the top, left and upper  
10 side and left side of the current block; and

memory for storing the blocks from said copy means and outputting the neighboring  
blocks of the current block to said copy means; and

said horizontal/vertical interpolating means comprises:

context calculating means for receiving the bordered blocks and calculating context

15 indexes for respective pixels;

probable table referring means for receiving the context indexes from said context  
calculating means, and reading and getting probable values corresponding to the index on/from  
the context probable table stored previously;

20 probability detecting means for detecting whether or not the probable value for an  
object interior read and gotten on/from said probable table referring means is more than 0.5;  
and

interior/exterior interpolating means for interpolating an object interior value or an  
object exterior value for the respective pixels on the bordered block in response to a detection  
result signal of said probability detecting means.

Please cancel Claims 16 through 18 without prejudice.

Claim 19, Line 1, change "15" to --24--.

Claim 20, Line 1, change "18" to --24--.

Claim 21, Line 1, change "18" to --24--.

Claim 22, Line 1, change "16" to --24--.

Please cancel Claim 23 without prejudice.

Please add the following Claims:

25. An apparatus for interpolating binary pictures by using context probable table  
in order to reconstruct the binary picture having low resolution as the picture having high

resolution through an up-sampling, said apparatus comprising:

block dividing means for dividing said binary picture into blocks of a given size;

5       bordering means for executing a bordering for blocks outputted from said block dividing means;

horizontal interpolating means for interpolating horizontally pixels of the blocks outputted from said bordering means;

10       vertical interpolating means for interpolating vertically pixels of the blocks outputted from said horizontal interpolating means; and

wherein said horizontal interpolation means and said vertical interpolation means comprise:

context calculating means for receiving the bordered blocks and calculating context indexes for respective pixels;

15       probable table referring means for receiving the context indexes from said context calculating means, and reading and getting probable values corresponding to the index on/from the context probable table stored previously;

20       probability detecting means for detecting whether or not the probably value for an object interior read and gotten on/from said probable table referring means is more than 0.5; and

interior/exterior interpolating means for interpolating an object interior value or an object exterior value for the respective pixels on the bordered block in response to a detection result signal of said probability detecting means.

26.     The apparatus of claim 25, wherein said copy means borders with the rightmost and lowermost pixel value of its left and top block if a block exists on the top and left side of the current block, and borders with the exterior of the object if the block does not exist on the